

Appl. No. 10/622,840
Amdt. Dated 09/14/2006
Reply to Office Action of 06/14/2006

REMARKS / ARGUMENTS

For the convenience of the Examiner and clarity of purpose, Applicant has reprinted the substance of the Office Action in *10-point bolded and italicized font*. Applicant's arguments immediately follow in regular font.

Applicant's communication filed on 3/23/06 has been carefully considered by the examiner. The arguments advanced therein are persuasive with respect to the rejection of record, and those rejections are accordingly withdrawn. In view of a further consideration, however, a new rejection is set forth below. This action is not made final

Applicant thanks the Examiner for his efforts on this file and for withdrawing the previous rejections.

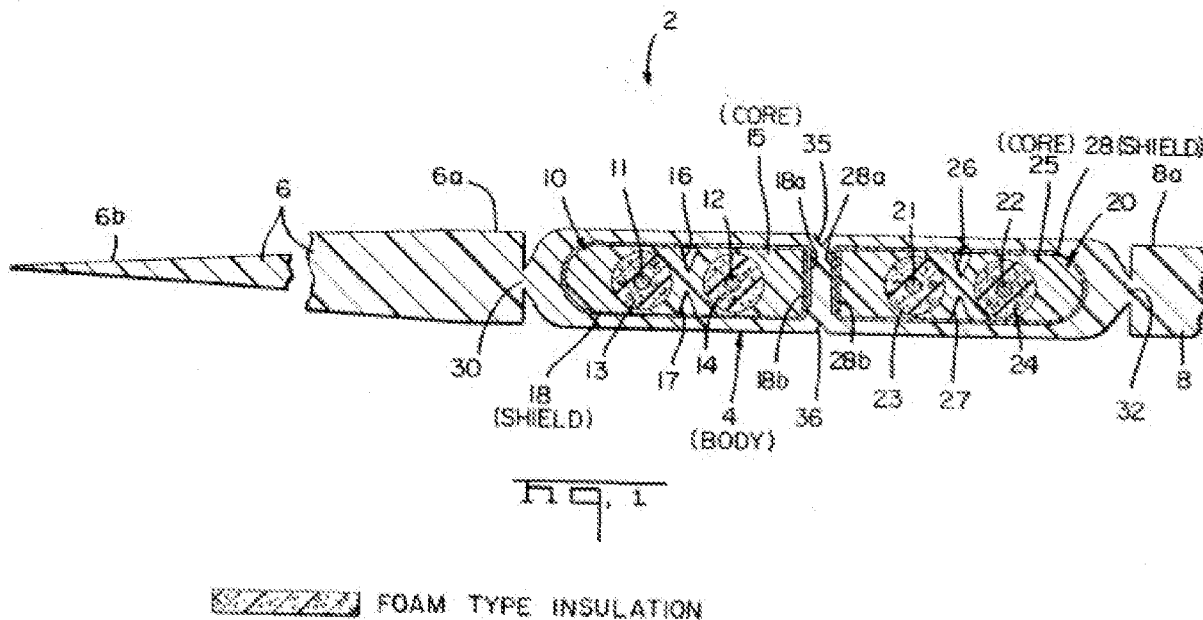
2. Claims 1-3, 6, 8, 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hughes et al (US 4,642,480).

Regarding claim 1, Hughes discloses a low profile cable with high performance characteristic and figures 1-4, section (28A028b) for antenna comprising'. A cable body (4) having a foam core (25) having a low- dielectric constant expanded poly-vinylchloride foam sheet disposed on at least one surface of the foam core (25) (see two conductor (23-24) for constant PVC). See figure 2, col.3, lines 30 to col.6, lines 1-57.

Applicant respectfully disagrees with the Office's application of the Hughes reference to independent claim 1. As a threshold matter, Applicant notes that an anticipation rejection requires that the Office present a *prima facie* showing that the Hughes reference discloses each claim limitation ***arranged in the order claimed***. See, e.g., *Brown v. 3M*, 265 F.3d 1349, 60 USPQ2d 1375 (Fed. Cir. 2001) ("to anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim"); *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 47 USPQ2d 1225 (Fed. Cir. 1998) ("a finding of anticipation

requires that the publication describe all of the elements of the claims, arranged as in the patented device.”); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)(“These elements must be arranged as in the claim under review.”). It is also improper to base anticipation on “substantial similarity” between the disclosure and the arrangement of claimed elements. See *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 756 F.2d 1556, 225 USPQ 253 (Fed. Cir. 1985).

The Office appears to argue (*see* Fig. 1 from Hughes, below) that: 1) Hughes’ EMI “shield” (28 or 18) is identical with Applicant’s “telecommunication antenna” recited in the preamble to claim 1; 2) Hughes’ insulating “core” (25 or 15) is identical with Applicant’s “foam core;” and 3) Hughes’ foam type insulation (13, 14, 23, or 24) is identical with Applicant’s “low dielectric constant expanded PVC foam sheet.”



Applicant respectfully traverses this rejection. First, the Hughes reference does not

disclose a “telecommunications antenna” of any type and, therefore, Hughes cannot disclose or teach a “panel” for a telecommunication antenna. Second, Hughes teaches that his cable should *never* function as an antenna as its purpose is to transmit high frequency signals without interference from other electromagnetic sources. Indeed, Hughes’ cable uses an electromagnetic interference (“EMI”) shield 18 or 28 to *prevent* the cable from functioning as an antenna. (Col. 7, lines 2-23) Hughes specifically notes that it is undesirable for there to be any “gaps” in the EMI shield, as such gaps could cause the cable to improperly function as an antenna.

Third, Hughes’ “insulating core” 25 is not disclosed to be a “foam” structure. Hughes discloses the insulating core 25 to be extruded PVC. (Col. 6, lines 29-37). Nowhere does Hughes disclose or teach that it is desirable for this PVC core to be “foam.” Applicant contends that Hughes actually teaches away from the insulating core 25 having a foam structure. Hughes clearly knows how to disclose a foam structure as the “foam type insulations” 13, 14, 23 and 24 are explicitly stated as being polypropylene or polyethylene “foam.” (Col. 5, Lines 36-45). Thus, if it was desirable for Hughes’ insulating core 25 to be foam, Hughes would have said so. Also, Hughes discloses that the insulating core 25 is a structural component that gives strength and protection to the other components of the cable. (Col 6, lines 18-37). It is likely that a foam insulating core 25 would provide the desired strength and protection for Hughes’ under-the-carpet cable.

Lastly, while Hughes “foam type insulation 24” is disclosed to have a low dielectric constant (Col. 5, lines 36-39), Hughes does not disclose that it can be made from PVC. Hughes’

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foam type insulation 24 is disclosed to be made from only polypropylene or polyethylene, not PVC.

Thus, for at least these reasons, the Office's application of Hughes to claim 1 does not present a *prima facie* showing of unpatentability. No amendment to claim 1 has been made in response to this rejection, and reconsideration and withdrawal of this rejection is requested.

Regarding claim 2, Hughes discloses comprising a cable comprising a mechanically interlocking (28a and 28b) together ends of cable. See figure 2, col.6, lines 54-67.

Regarding claim 3, Hughes discloses wherein the foam core (25) comprises polystyrene. See col.5, lines 45-60.

Regarding claim 6, Hughes discloses wherein the low-dielectric constant expanded poly- vinyl-chloride foam sheet is attached on the at least one surface of the foam core by an adhesive or a tape. See figure 1 , col.5, lines 1 - 15.

Regarding claim 8, Hughes inherently discloses wherein the low-dielectric constant expanded poly-vinyl-chloride foam sheet has a dielectric constant equal to or less than two, because Hughes discloses that, this cable has a constant PVC.

Claims 2, 3, 6 and 8 depend from independent claim 1 and are patentable for at least the reasons presented above for claim 1. In addition, Applicant would point out that: 1) Hughes does not disclose insulating core 25 to be made from polystyrene foam; and 2) Hughes does not disclose that its low dielectric foam material (i.e., insulating core 24) is expanded PVC foam or that it is attached to anything with an adhesive or tape. No amendments to claims 2, 3, 6 or 8 have been made in response to these rejections. Reconsideration and withdrawal of these rejections is requested.

Regarding claim 10, Hughes discloses a plurality of concealment panels (18 and 28) for concealing a portion of the antenna, the concealment panels (18 and 28) at least partially composed of an expanded poly-vinyl- chloride foam and inherently discloses a dielectric constant equal to or less than two (because Hughes discloses this cable has a constant PVC). See figure 2, col.3, lines 30 to col.6, lines 1-57.

Applicant incorporates its arguments presented above with respect to claims 1 – 3, 6, and 8. In addition, claim 10 requires that the plurality of “panels” conceal a portion of the antenna. Under the Office’s application of Hughes, EMI shield 18 or 28 is the “antenna.” Under the Office’s construction, the antenna would be on the *outside* of the “panel” and, therefore, not concealed. Also, as discussed above, Hughes does not disclose PVC *foam*. Also, Hughes discloses that the extruded PVC insulation 25 (which the Office says is identical to Applicant’s “low dielectric constant expanded PVC foam sheet”) has a dielectric constant that is *greater* than Hughes’ low dielectric foam type insulating core 24. (Col. 6, lines 14-18) Lastly, Applicant cannot agree with the Office’s conclusion that Hughes’ extruded PVC insulation (*e.g.*, insulation 25) “inherently discloses a dielectric constant equal to or less than two (because Hughes discloses this cable has constant PVC).” Pursuant to MPEP 2112, the Office is requested to provide objective evidence or cogent technical reasoning to support the conclusion of inherency.

Thus, for at least these reasons, the Office’s application of Hughes to claim 10 does not create present a *prima facie* showing of unpatentability. No amendment to claim 10 has been made in response to this rejection, and reconsideration and withdrawal of this rejection is requested.

Regarding claim 11, Hughes discloses comprising a cable comprising a mechanically interlocking (28a and 28b) together ends of cable. See figure 2, col.6, lines 54-67.

Regarding claims 12-13, Hughes discloses the cable comprise a first sheet of expanded polyvinyl-chloride foam and a foam core disposed on a side of the first sheet of expanded poly-vinyl-chloride foam. See figures 1-2.

Regarding claim 14, Hughes discloses wherein the foam core (25) comprises polystyrene. See col.5, lines 45-60.

Regarding claim 15, Hughes discloses wherein the core (25) comprises a second sheet of expanded poly-vinyl-chloride foam disposed on side of form core opposing the first sheet. See figures 1-2.

Regarding claim 16, Hughes discloses wherein the low-dielectric constant expanded poly-vinyl-chloride foam sheet is attached on the at least one surface of the foam core by an adhesive or a tape. See figure 1 , col.5, lines 1-15.

Claims 11-16 depend from independent claim 10 and are patentable for at least the reasons presented above for claim 10. In addition, Applicant would point out that: 1) Hughes does not disclose insulating core 25 to be made from polystyrene foam; 2) Hughes does not disclose a PVC foam of any type; 3) Hughes does not disclose that its low dielectric foam material (i.e., insulating core 24) is expanded PVC foam or that it is attached to anything with an adhesive or tape. No amendments to claims 11 - 16 have been made in response to these rejections. Reconsideration and withdrawal of these rejections is requested.

4. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al (US 4,642,480).

Regarding claims 17-18, Hughes essentially discloses the claimed invention but does not explicitly disclose that, the cable define curved surface by the thermoforming or vacuum forming a substantially flat sheet and the curved surface have a smaller thickness at edges of the panels than a at center of panels. It would have been an obvious matter of design choice to employ Hughes in any desired interest a curved surface by the thermoforming or vacuum forming a substantially flat sheet and the curved surface have a smaller thickness at edges of the panels than a at center of panels in order to maximize the usage of his invention, since applicant does not disclose that, all

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of these limitations can solve any stated problem and for any particular purpose. Therefore, it appears that the invention would not provide any improvement but merely apply the invention in different presentation.

Claims 17 and 18 depend from independent claim 10 and are patentable for at least the reasons presented above for claims 10 - 16. No amendments to claims 17 or 18 have been made in response to these rejections. Reconsideration and withdrawal of these rejections is requested.

5. Claims 4-5, 7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for his efforts in reviewing the patentability of these claims. However, in light of the arguments presented above with respect to claim 1 (from which these claims depend), Applicant has chosen not to re-present these claims at this time.

The following is a statement of reasons for the indication of allowable subject matter: Prior art does not teach, a foam core has first and second sides, and wherein a first low-dielectric constant expanded poly-vinyl-chloride foam sheet is disposed on the first side and a second low-dielectric constant expanded poly-vinyl-chloride foam sheet is disposed on the second side recited in dependent claim 4.

For at least the reasons presented above, Applicant agrees that Hughes does not render claim 4 unpatentable.

Prior art does not teach that, wherein the low-dielectric constant expanded polyvinyl-chloride foam sheet has a thickness of approximately 4 to 10 mm, and wherein the foam core has a thickness of approximately 2-inches or urethane forming a layer between the low-dielectric constant expanded poly-vinyl-chloride foam sheet and the foam core and having a thickness of approximately 3 to 10-mils in dependent claims 7 and 9.

For at least the reasons presented above, Applicant agrees that Hughes does not render claims 7 and 9 unpatentable.

CONCLUSION

Claims 1 - 26 are currently pending in this application, with claims 19 – 26 being withdrawn from consideration. Claims 1 - 3, 6, 8, and 10 - 15 stand rejected and claims 4, 5, 7 and 9 are objected to.

No claim has been amended in response to the rejections or objections, and Applicant submits that each claim presented herein is patentable. A timely notice of allowance is respectfully requested.

The Commissioner is authorized to charge to deposit account 12-1322/021961-015US any fees necessary to make this and related papers, if any, timely and effective.

Applicant thanks the Examiner for his consideration and effort on this file. If there are any questions or if additional information is needed, the Examiner is invited to telephone or email the undersigned.

Respectfully submitted,

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